TECHNO-PEDAGOGICAL SKILLS AND TEACHER EFFICACY AMONG B.ED. TEACHER EDUCATORS

SYNOPSIS OF THE THESIS

Submitted by

Mrs. Nitika Sharma

Registration No.:AU22EDPhD0089

Under supervision of

Dr. SUMAN KUMARI

In Partial fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

SCHOOL OF EDUCATION

FACULTY OF EDUCATION, BASIC SCIENCES AND HUMANITIES

ABHILASHI UNIVERSITY

CHAIL-CHOWK, MANDI (H.P)-175028

MARCH, 2024

DECLARATION

I hereby declare that the dissertation synopsis entitled "**TECHNO-PEDAGOGICAL SKILLS AND TEACHER EFFICACY AMONG B.ED. TEACHER EDUCATORS**" to be submitted for the partial fulfilment of the Degree of Doctor of Philosophy is my original work and the dissertation has not formed the basis for the award of any degree, diploma, associate ship or fellowship of similar other titles. It has not submitted to any other University or Institution for the award of any other degree or diploma.

Place: Mandi
Date : 24/03/24

Signature of the Scholar
Name of Scholar

Forwarded by: Concern Supervisor

Place: Mandi
Date: 24/03/2024

Signature of the Supervisor
Name of the Supervisor

24/3/24

CERTIFICATE

This is to certify that the thesis titled **"TECHNO-PEDAGOGICAL SKILLS AND TEACHER EFFICACY AMONG B.ED. TEACHER EDUCATORS"** an original piece of work done by **Mrs. Nitika Sharma** under my supervision for the degree of Doctor of Philosophy, in Abhilashi University Chail Chowk, Mandi H.P. I also certify that this work has not been submitted to any other university for a Ph.D. degree.

Place: Chailchowk.

Date: 24/03/24.

Signature of the Supervisor:

Name of the Supervisor

INDEX

S. No.	Title	Page No.
	Technology Techno Pedagogical Skills Techno Pedagogical Model Need of Techno Pedagogical Skills Role of Techno Pedagogical Skill in Teacher Education Self- Efficacy Teacher‟s Sense of Self-Efficacy The Development of Self-Efficacy Nature of Self-Efficacy Types of Self-Efficacy Characteristics of Self-Efficacy Four ways to increase Self-Efficacy Sources of Self-Efficacy	
	Review of Related Literature	
	Need and Significance of the Study	
	Statement of the Problem	
	Objectives of the Study	
	Hypotheses of the Study	
	Delimitations of the Study	
	Operational Definitions of the Terms Used	
	Variables of the Study	
	Research Methodology to be Used Sampling Research Tools to be Developed /Used Procedure for Data Collection Statistical Techniques to be Used	
	References	

INTRODUCTION

Information, Communication and Technology (ICT) in world-class education will helps teachers to revitalize tradition teaching methods by using of technology and learning tools and resources. Technology has become vital in the 21st century technology support in many fields, including education. This is because of true technology has become the access to information in many countries. The technological revolution now a days has gone through new innovation and also transformed our societies that has completely changed the way of people thinking, working and living standards. As part of this school and other educational institutions that are through to integrate college students to stay in the "knowledge society" need not forget the integration of ICT into their curriculum**.**

From many years, technology made enormous changes to human life. At present we proceed towards hi-tech revolution the students of this generation are technological learners. Technology establishes good relationship between teacher and learner. Through this learning or teaching process become attractive, meaningful, interesting. Here, the role of teacher is changed into mentor, coach, advisor, encourager, content expert, etc. Hence; it is a high time to utilize technology for all walks of life, basically for learning and teaching process.

The rapid expansion of knowledge society demands such teaching where in teacher applies modern technologies in their teaching. Only introduction of technology in educational system will bring suitable changes and development in educational structure and technology. Techno pedagogy helps the stakeholders in case these are properly utilized became a boon for all. But, lack of knowledge, attitude and skills are the major constrain in its proper utilization and application. Technology has qualitatively as well as quantitatively revolutionized the way of imparting teaching and gaining learning in teaching-learning process. Technology enables the teachers, teacher-educators and teacher-trainees to communicate teaching and instruction effectively. Teaching-learning process becomes pleasurable process through appropriate application of techno pedagogical skills.

TECHNOLOGY

The term „Technology" can be specified as the tools or devices created by human knowledge of how to combine these resources to produce desired products or results to solve problems, fulfil needs or satisfy wants. The first use describes an

individual tool or technique and the second use encompasses all tools, techniques, and knowledge .If one chooses to use the first sense of the term there can be internet technology that specifically refers to the tool, namely, the internet. Also there is a "Information technology, a Data processing technology, and "microscope technology" (generally called technologies).By using the second sense of term, there can be electronic learning, which relates the sum of the devices, methods, and collective knowledge related to education. This definition include both analogue technologies (chalkboard, pencil, and microscope) and digital technologies (the computer, blogging, and internet) our views does not distinguish between older technologies (the chalkboard, the overhead projector, the hand-held calculator, and the pencil)and newer technologies.

TECHNO PEDAGOGICAL SKILLS

This is the innovative process of teaching in which Information Communication Technology is used for learning and teaching process. And „Pedagogy" refers to the method and practice of teaching and „techno" refers to the art-skill that constructs the knowledge. Here, „techno" is a attribute; it intersects the meaning of „pedagogy" with its own. So, techno-pedagogical skills mean changing teaching strategies in the learning environment by itself (Thakur 2015).

It clears the reality that by using more senses, someone learns something then he can understand the concept in a right way. As well, the use of computer technology can engage learners in the four-step process as defined by Kolb in the book Experiential Learning (1984), where he identifies the steps in the following manner. The main aim of adding technology in teaching and learning is to give better value to learners.

TECHNO-PEDAGOGICAL MODEL

In, current scenario in teaching and learning process the techno pedagogical efficiency is more important and needed for teachers, as it make teaching and learning effective process. Techno pedagogical skills are nothing but the efficiency that makes the teacher so efficient to use technology effectively in the teaching and learning process in the classroom.

1. **Content :** Is the subject or idea that is to be taught.

2. **Technology :** Is the combination of latest equipment‟s such as internet , hi-tech, audio-videos and common place equipment‟s including overhead projectors, smart board and e-books
3. **Pedagogy :** In teaching and learning process pedagogy means deferent methods , procedures, processes , techniques and approaches of teaching and learning .

NEED OF TECHNO PEDAGOGICAL SKILLS

Teaching plays a vital role and gives to the favourable result of any training program. The teacher is at the forefront of the education and arts in the pyramid building. Technology is a broader and flexible set of processes that need intelligence and choosing the right techno-pedagogical methods to successfully engage students in subject matter or ideas for unique set of issues. Media text is contributing student development, and enhancing use of critical media is a critical skill for learners. To understand how technology and media interact with learning, consider the association between equipment, idea and education and how that related to the subject matter. There may be a need for instructors and institutional level, to select and clarify work truths where technology and skills interact .While understanding communicating how technological resources and strategies engage students in learning and also improve students‟ learning. The teacher detains the most important position and institution within the successful outcomes of any education system. The teacher in the teaching is the highest position in education and the art of the pyramid of education that shapes the teacher of the future and the standard of the teacher and therefore depends on the teachers‟ own self.

Changes is vast and always changing a shaped position of skills and in key on the right techno-pedagogical methods and techniques to successfully participate students in subject matter or ideas that is unique set of skills. Media literacy contributes to student‟s development or the critical media assessment available is a valuable skilfulness for students. To recognize how media and technology related to learning, one should not forget the connection between technology idea and training programme, and how that correlates with subject matter as well as the institution level. There is a need for graduate teachers and graduate students, to discover and clarify practical realities in workplace where technology and skills combine, while understanding and

communication are about how resources and technology can interact with learners and enhance learner learning.

ROLE OF TECHNO PEDAGOGICAL SKILLS IN TEACHER EDUCATION

An educational technology means tools and devices from long before the arrival of computers. From the abacus to the VCR, from the slate of the calculator, from printed textbooks to CD ROMS, students and teachers have made use of numerous technologies to aid in the construction and presentation of educational material.

Technologies seem to help student teachers overcome a great array of teaching challenges or difficulties encountered during their teaching. In the classroom the greatest advantage of employing technologies appears to be the diversity of activities that can be undertaken. Technology appears help student teachers diversity both their teaching strategies and the activities they expect learners to accomplish.

Technology helps teacher educators to be more professional as they allow them to have an increased access to a great variety of up-to-date resources to improve teaching/learning activities Technologies helps them present new concepts, theories or ideas and it helps to nurture student motivation, an important challenge, especially at the high school level. It is a very useful means to increase communication with various people evolved in their field practice (cooperating teacher, university supervisor, colleagues and peers, other professors, parents, etc.).Use of Information and communication Technology increases collaboration and communication during the process of teaching-learning.

Techno pedagogical subject matter information is a collaborative and interactive framework for researchers and researchers seeking to clarify the skills that come from the interaction between pedagogy and technology .Investing in new and confounding technology in education requires both technical and ideal skills to use. In a new online learning environment teaching occurs effectively. Where teaching and teachers also explore technology, learn technical skills, and evaluate the suitability of numerous technologies in their learning environments or create innovative and valuable strategies for incorporating technology into logical pedagogy**.**

TEACHER EFFICACY

Teacher efficacy is defined as a task-specific judgment of one‟s ability to execute a successful course of action i.e. it reflects an individual difference variable. In functional terms, Bandura (1986) suggested that efficacy expectations may predict whether or not one‟s action will be initiated, the amount of effort expended in pursuit of that activity, and the level of persistence in the face of obstacles. People who think they can perform well on a task do better than those who think they will fail. Differences in self-efficacy are associated with bonfire differences in skill level; however, efficacy perceptions also may be influenced by differences in personality, motivation and the task itself. Self- efficacious individuals consider themselves capable of performing any particular activity. It, therefore, partly determines people‟s actions, their decisions to engage in a task, to put forth effort and to persevere under failure. Moreover, it affects thought patterns and how much stress people experience in the environment.

Dimensions of Self-Efficacy

Self-efficacy is based on two dimensions-„outcome expectancy‟ and „efficacy expectancy. „Outcome expectancy‟ implies, an individual estimates that a given behavior will result in certain outcomes. „Efficacy expectations‟ refer to behaviors toward the expected outcomes. The efficacy question is, Do I have the ability to organize and execute the actions necessary to accomplish a specific task at a desired level? The outcome question is, if I accomplish the task at that level, what are the likely consequences? Temporarily, efficacy expectations precede and help from outcome expectations. Outcome expectancies, in the form of physical or social rewards, recognitions, punishments, criticisms, or self-evaluations, can provide incentives and disincentives for a given behavior."

Bandura (1977) in self-efficacy theory outlined four sources of information that individuals employ to judge their efficacy: performance outcomes (performance accomplishments), vicarious experiences, verbal persuasion, and physiological feedback (emotional arousal). These components help individuals determine if they believe they have the capability to accomplish specific tasks. Williams and Williams note that "individuals with high levels of self-efficacy approach difficult tasks as challenges to master rather than as threats to be avoided. Self-efficacy theory states that the combination between the four factors of developing self-efficacy and three assessment processes used to interpret self-efficacy will determine the level of self-

efficacy which directly affects the performance outcomes. The three assessment processes for self-efficacy are the analysis of task requirements, attribution analysis of experience, and assessment of personal and situational resources/constraints **(Gist & Mitchell, 1992).**

Self-efficacy refers to a person's confidence in their capacity to handle obligations. More precisely, a teacher's desired learning objectives to enhance the learning of his or her pupils are the focus of teacher educators' self-efficacy. Improved learning outcomes are influenced by teachers' self-efficacy levels. The degree of achievement at school may be hampered by low teacher self-efficacy. The development of self-efficacy is influenced by a few environmental and personal factors. These include having confidence in one's ability to complete a task, looking up to successful people, and enlisting the help of others. Self-efficacy beliefs in teachers boost their motivation, which may have a big impact on school culture. Three components make up teacher self-efficacy: effectiveness for classroom management, effectiveness for instructional practices, and effectiveness for student involvement. By involving students in the lesson, enhancing teaching techniques, and maintaining a well-organized learning environment, a teacher who possesses a high degree of self-efficacy can effectively engage students, implement instructional tactics, and manage the classroom.

TEACHER'S SENSE OF SELF- EFFICACY

Teacher‟s sense of efficacy is a judgment about capabilities to influence student engagement and learning. Even among those students who may be difficult or unmotivated. Teachers with a strong sense of efficacy tend to exhibit greater levels of planning. They tend to be more open to new ideas, more willing to experiment with new methods to better meet the needs of their students, and more committed to teaching they persist when things do not go smoothly and are more resilient in the face of setbacks. And they tend to be less critical of students who make errors and to work longer with a student who is struggling. Ross (1994) received 88 teacher efficacy studies in pre- college setting and identified potential link between teachers sense of efficacy their behaviour Ross suggested that teacher with higher levels of efficacy are more likely; (1) learn and use new approaches and strategic for teaching (2)use management techniques that enhances student autonomy (3)provides special assistant to low achieving students(4) build students self-perceptions of their academic skills,(5) set attainable goals, that (6) persist in the face of student failure.

THE DEVELOPMENT OF SELF-EFFICACY

Bandura (1977) identified four sources of efficacy expectations: mastery experiences (the most powerful source) psychological and emotional states, vicarious experiences, and social persuasion. The perception that teaching has been successful (mastery) raises expectations that teaching will be proficient in the future, unless the success required such massive work that the individual feels unable to sustain this level of effort. The perception that one‟s teaching has been a failure is viewed as providing clues about more potentially successful atrategoes. Interpretations of emotions and psychological arousal can add to the feelings of mastery or incompetence. For example, feelings of tension can be interpreted as anxiety and fear that failure is imminent or as excitement (i.e., being "psyhed" for a good class).

NATURE OF SELF EFFICACY

Self-efficacy is the belief in one‟s ability to succeed in achieving an outcome or reaching a goal. This belief related to the specific task, specific to a task or an area of knowledge or performance, shapes the behaviours and strategies that help one pursue their goal. Self-efficacy is informed by five influences (also known as sources) performance experience, vicarious experience, social peruasion, imaginal experience, physical and emotional states.

- **Performance experience:** Refers to one‟s previous and related experiences, which can influence their perception of whether or not one has the competence to perform the task at hand. This tends to be what influences self-efficacy the most.
- **A vicarious experience** refers to the observed performances and experiences of others like oneself in a similar situation.
- **Social persuasion:** Refers to verbal encouragement or discouragement about a person‟s ability to perform. Typically, the more credible the source, the more impact this source is likely to have on a person‟s efficacy.
- **Imaginably experiences :**Refer to a person‟s use of their imagination to envision his or her success at a task.
- **A physical and emotional state :**Refers to how one experiences physical sensations and emotional states when facing the task or challenge.

TYPES OF SELF-EFFICACY

Low self-efficacy

- Have low confidence.
- Lessen their effort under difficult situation.

High self-efficacy

- Have more confidence.
- Try harder to master the challenge.
- Recover quickly from setbacks and disappointments.

CHARACTERISTICS OF SELF-EFFICACY

- High levels of self-efficacy enhance one‟s accomplishments and feelings of personal wellbeing.
- Self-efficacy helps one to remain calm when approaching challenging tasks.
- High self-efficacy increases one‟s willingness to experiment with new ideas.
- Self-efficacy encourages one to set higher expectations for future performances.

FOUR WAYS TO INCREASE SELF-EFFFICACY

- **Enactive mastery:** Gaining relevant experience with the task or job.
- **Vicarious modelling**: Becoming more confident because you see someone else doing the task.
- **Verbal persuasion:** Becoming more confident because someone else convinces you that you have the skills necessary to be successful.
- **Arousal:** It leads to energized states which do specific task and least powerful self-efficacy. And related to our ability to perform.

SOURCES OF SELF-EFFICACY

- The most effective way of creating a strong sense of efficacy is through mastery experiences.
- The second way of creating and strengthening self-beliefs of efficacy is through the vicarious experiences provided by social models.
- Social persuasion is a third way of strengthening people‟s beliefs that they have what it takes to succeed.

- The fourth way of modifying self-beliefs of efficacy is to reduce people‟s stress reactions and after their negative emotional proclivities and misinterpretations of their physical states.

REVIEW OF RELATED LITERATURE

In the present study, the investigator tried to gather and review various related literature related to techno pedagogical skills which will give the direction to the researcher to conduct the study in proper manner:

Mutton and McNicolla (2007) studied on use of information and communication technology in their subject in teaching to development or skills in a new situation working with trainee teachers. The aim of the study was to developing the proficiency of trainee teachers in relation to make the use of information and communication technology in the classroom. Data were collected through questionnaires and interviews. There results revealed that the trainee feel less confidence and mentors feel that their information and communication technology expertise is often not as great as that of the trainee.

Mamadou (2009) examined how well teachers integrate information and communication technology into their teaching. The findings in the study revealed that students and teachers in both schools use information and communication technology for their classroom but no teacher training programmes were there for moment to provide techno pedagogical skills linked to the school curriculum or to the subject being taught. Further, teachers were trained to use computers as well as other computer applications without linking their use to teaching.

Lambert and Gong (2010) aimed that major course changes in 11 sections of a standalone educational technology course redesigned around 21st century skills sets as opposed to technical skills development. The study revealed that even in a more rigorous course pre-service teachers became less anxious about computers, their belief in the value of using technology to enhance teaching and learning as well as their self-efficiency towards integrating technology in the classroom significantly improved, and they became more advanced in their technical skills and knowledge so they can apply these skills in their classroom.

Teemu (2011) revealed that assumptions about „Net Generation" student teachers" abilities to adopt ICT in their teaching are highly questionable and that greater attention should be given to the development of their techno- pedagogical knowledge.

Balgalmis (2012) explored the role of a dynamic geometry course on pre-service teacher"s techno pedagogical skills about the use of technology on mathematics classroom. The research method of the study is a case study. Study revealed that pre-service teacher"s need techno pedagogical knowledge in their classroom.

Almada (2014) found that the role of the university institution had been fundamental to the proper running of the course, and the constant communication between the facilitator and the lecturers had been important.

Lekkam Hanane and BenabouDjilali (2015) revealed that the rapid development of the ICT compels us to train both teachers and students in skills that allow adapting to the new learning situations; both carrying a survey method among 240 Algerian university teachers, we tried to describe the importance given to ICT in education; while emphasizing their impact on the techno-pedagogical skills of the higher education teachers.

Preetibala and Imlikokla (2018) investigated on techno pedagogical skills among senior secondary school teachers. Descriptive survey method was applied. The data were gathered from 100 teachers of senior secondary schools both from government and private schools .The study showed that there was no significance difference in female or male teachers with respect to their techno- pedagogical skills.

SenerSenturk (2019) investigated the connection between lifetime learning trends and technological pedagogical subject matter knowledge of the teacher candidates. The design of the study was based on the co-relational survey model. The findings of study revealed that there was no significant difference in terms of gender for techno pedagogical education competency of education teacher candidates in favour of females in the context of independent samples.

Brando-Garrido (2020) conducted a study on relationship of academic procrastination with perceived competence, coping, self-esteem and self-efficacy in nursing students.

Study aimed to examine the role that perceived competence, resilient coping, self-esteem and self-efficacy can have as protective factors of the academic Participant were 237 nursing students, 202 women and 35 men. The participants answered a questionnaire. Findings revealed that significant negative correlation coefficients were obtained between them.

Dong (2020) conducted a study on exploring the structure relationship among teachers techno stress, technological pedagogical content knowledge computer self-efficacy. Data collected from in-service teachers. Study aimed to check techno pedagogical knowledge and self-efficacy. Finding revealed that the use of techno pedagogical skills and teachers efficacy depends upon support of principal and administration for positive results.

ErinMacAfee (2020) study investigated the relational changes between music performance anxiety (MPA), self-efficacy, performance quality, and behavioural anxiety in five adolescent piano students over a six-week intervention. Study explored the effects of a positive self-review self-modelling intervention on adolescent musicians. Study revealed that there was no relationship between MPA and behavioural anxiety, suggesting that students may appear less anxious than they feel.

Kustyarini (2020) study aimed to analyse the self-efficacy and emotional intelligence in mediating the effect of implementing active learning methods on students learning outcomes. Sample size was 160 students. Study revealed that students perceptions about the implementation of active learning methods, self-efficacy and emotional quotient.

Yanis (2020) investigated pre-service science teachers self-efficacy in their teaching practices by integrating technology .The finding of the study revealed that the scale was a valid and a reliable instruments for measuring pre-service science teacher‟s self-efficacy.

Asad (2021) examined the techno-pedagogical skills requirements of the science and art teachers of the Sukkur government college .The finding of the study

revealed that there was no significant difference to use techno pedagogical skills by art and science teachers those use technology in teaching .

Belgin (2021) conducted a study to examine the correlation and predictive power of pre-primary school teacher skills and a self-efficacy. Study revealed that 21st century pre-primary teachers need to requirement of modern age.

Caner (2021) investigated a study on use of technology in daily life into teaching practices and also measures their self-efficacy. The finding of the study showed there is a significant difference in terms of gender variables.

Kasa (2021) conducted a study to examine classroom teacher‟s self-efficacy beliefs and technological pedagogical content knowledge. The result revealed that there was a positive significant relationship between technological pedagogical content knowledge and self-efficacy beliefs of teachers.

Lyonga (2021) investigated the relationship between techno pedagogical skills and teachers performance HTTTC Kumba. Total sample of 42 teachers were selected by using a simple random sampling technique. The result revealed there was a significance positive relationship between teacher performance and techno pedagogical skills. It was suggested that educational practitioners should know how to construct subject area content, pedagogy and technology effectively in their classroom interaction.

Thirunavukkarasu (2021) conducted a study on techno-pedagogical skills of B.Ed. student teachers. The investigation was carried out as a descriptive research .The samples consists of 200 B.Ed. Students teachers from four self-finance colleges of Education in Tiruchirappalli district. The result of the study found that a final status report of the measure of techno pedagogical skills of B.Ed. student teachers.

Blonder (2022) conducted a study to examine the experience of graduate degree lecturer when they switch online teaching during COVID- 19 and measure their self-efficacy for online teaching .The findings revealed that insights can help to improve their self-efficacy and online teaching in higher education.

Gomez (2022) conducted a study to examine self-efficacy factor in teaching to use technology. The findings revealed that use of technology influenced teacher‟s self-efficacy in their profession.

Juan-Manuel (2022) studied digital self-efficacy and the amount of perceived support from the school can improve teacher‟s motivation to increase the use of information and communication technology in the class room. The findings showed that by classifying teachers based on their digital competence, effective teaching environments that encourage the use of ICT in teaching practice can be designed and pedagogical strategies can be expanded**.**

Navarro (2022) conducted a study to analyse personality traits associated with gender and attitudes and self-efficacy towards teaching science and mathematics in pre-service primary teachers. convenience sampling was used to select 92 pre-service primary teachers .The findings in the study revealed that relation to creating more equitable school environment that strive to attract more students, especially girls, to engage in science and mathematics.

Setua (2022) studied the effectiveness of techno pedagogical skills of secondary school teachers in their online teaching. The result also revealed that a moderately positive correlation between techno pedagogical skills and online teaching.

Bajasa (2023) conducted a study to check technology integration skills, techno stress, self-efficacy among elementary teachers .Study aimed to check the interaction effect and use of ICT to each other. Study showed that their negative impact of both the self-efficacy of teachers and their satisfactory with their job.

Mariagiovanna (2023) conducted a study to check the protective role of positivity and emotional self-efficacy beliefs in times of the COVID-19 pandemic. Study aimed the impact of positivity and self-efficacy beliefs in managing anger, fear, and sadness on positive and negative affect was examined at three time points over 9 months. Study revealed that protective role of both positivity and regulatory emotional self-efficacy beliefs mostly against negative affect, corroborating previous findings.

Raveendran and Muthuchamy (2023) revealed that the level of techno-pedagogical competence among student-teachers was found to be at average. The

Science optional B.Ed. Trainees have better than the Language optional B.Ed. Trainees towards Techno-Pedagogical Competence, besides Techno-Pedagogical Competence among rural area B.Ed. Trainees was low, when comparing with urban B.Ed. Trainees. Alternatively, the demographic variables like gender and educational qualification do not differ significantly with respect to their techno-pedagogical competence.

Caitlin, D (2024) conducted a study on college students they face barriers to eating healthy foods. A quasi-experimental comparison study was carried out among undergraduate college students. Study aimed to improve student‟s knowledge, attitudes, self-efficacy, skills and behaviours around food procurement and preparation. Study revealed that less self-efficacy around cooking and healthy eating skills.

Galiana (2024) study aimed to validate the Spanish version of the five-item General Self-efficacy scale in a sample of nursing students. A casual effect of self-efficacy on nursing student‟s levels of resilience was found.

NEED AND SIGNIFICANCE OF THE STUDY

The rapid development in educational technology has redefined the teaching and learning process to a greater extent. It has given a new face lift to the traditional classroom and changed drastically the pedagogy. Therefore, it a must for the teachers to get acquaintance with the application of recent technological principles and gadgets in their teaching and hence there is urgent need to examine the techno pedagogical skills by the teachers. The techno pedagogical skill is nothing but the ability of the teachers to make use of technology effectively in teaching.

The techno pedagogical skills competency plays a significant role in teaching and learning process. It facilitates quick learning, more learning and longer retention every teacher must know appropriate use of technology with respect to the content. It makes the teaching process free from friction. Using technology develops self- efficacy in the teachers. Even though many of the teachers hesitate while using technology due to some reasons one such reason is their anxiety towards the use of technology in a hi-tech classroom; teachers are expected to make the use of so many modern instructional gadgets while teaching.

Technological tools have become a part of our life. The introduction of technology in the field of education has completely change the conventional way of teaching and learning by modifying and making the enormous use of technology in the field of education in order to make the best use of our resources, it is especially that all

persons engaged in the educational enterprise and especially the teacher should understand adequately the dynamics and mechanism of educational technology and provide the best education to the students. Also the favourable attitude of teachers towards using new technology in teaching will certainly make teachers use them in appropriate situations in teaching

In this present study, teacher educators who are teaching in B.Ed. colleges should possess techno-pedagogical skills competency in order to cater the needs of a hi-tech classroom. Hence, the investigator attempted to study the perceived techno-pedagogical skills competency of teacher educator of B.Ed. colleges.

Since the role of teacher educators is to teach such students who have to disseminate education to the students in the educational institution, they need to be professionally efficient to spread quality knowledge. In the present scenario to ensure quality educational learning new innovative techniques are being implemented for knowledge dissemination. Use of technology has bounced such initiatives. But to disseminate quality knowledge it is essential and that teacher educators must be acquainted with the technology usages. In order to know about the knowledge of using techno pedagogical methods by the teacher educators a need is felt to conduct the research.

It is assumed that knowledge and friendly behaviour of techno pedagogical skills is the determined of the stream of teacher educator and is influenced by gender and age. A need arises to examine this aspect for authentication of the assumption as well as to understand the interactional effect of such variables. Further, need is felt to study the difference in self confidence among teacher educators with regard to these variables.

STATEMENT OF THE PROBLEM

"TECHNO-PEDAGOGICAL SKILLS AND TEACHER EFFICACY AMONG B.ED. TEACHER EDUCATORS"

OBJECTIVES OF THE STUDY

1. To study techno-pedagogical skills and teacher efficacy of B.Ed. teacher educators.
2. To study the relationship between techno-pedagogical skills and teacher efficacy of B.Ed. teacher educators.
3. To study the difference in techno-pedagogical skills among B.Ed. teacher educators with regard to following variables:
   (i) Gender

(ii) Teaching Experience

(iii) Educational Qualification (NET/ Non-NET)

4. To study the interactional effect of following variables with respect to techno-pedagogical skills among B.Ed. teacher educators:
   (i) Gender and Teaching Experience
   (ii) Gender and Educational Qualification
   (iii) Teaching Experience and Educational Qualification
   (iv) Gender, Teaching Experience and Educational Qualification
5. To study the difference in teacher efficacy among B.Ed. teacher educators with regard to following variables:
   (i) Gender
   (ii) Teaching Experience
   (iii) Educational Qualification (NET and Non-NET)
6. To study the interactional effect of following variables with respect to teacher efficacy among B. Ed. teacher educators:
   (i) Gender and Teaching Experience
   (ii) Gender and Educational Qualification
   (iii) Teaching Experience and Educational Qualification
   (iv) Gender, Teaching Experience and Educational Qualification
7. To study the views of teacher educators regarding use of technology during teaching-learning process.
8. To identify the difficulties faced by B.Ed. teacher educators while employing techno-pedagogical practiced and skills during teaching-learning process.
9. To lay down suggestions for improvement of techno-pedagogical skills and teaching efficacy of B.Ed. teacher educators.

HYPOTHESES OF THE STUDY

1. There will be significance positive relationship between techno-pedagogical skills and teacher efficacy of B.Ed. teacher educators.
2. There will be no significance difference in techno-pedagogical skills among B.Ed. teacher educators with regard to following variables:
   (i)Gender
   (ii) Teaching Experience
   (iii)Educational Qualification (NET/ Non-NET)
3. There will be no significant interactional between following variables with respect to techno-pedagogical skills among B.Ed. teacher educators:
   (i) Gender and Teaching Experience
   (ii) Gender and Educational Qualification

(iii) Teaching Experience and Educational Qualification

(iv) Gender, Teaching Experience and Educational Qualification

4. There will be no significance difference in teacher efficacy among B.Ed. teacher educators with regard to following variables:
    (i) Gender
    (ii) Teaching Experience
    (iii) Educational Qualification (NET and Non-NET)
5. There will be no significant interactional between following variables with respect to teacher efficacy among B. Ed. teacher educators:
    (i) Gender and Teaching Experience
    (ii) Gender and Educational Qualification
    (iii) Teaching Experience and Educational Qualification
    (iv) Gender, Teaching Experience and Educational Qualification

DELIMITATION OF THE STUDY

- The study will be delimited only to B.Ed. teacher educators teaching in privately managed B.Ed. colleges of Himachal Pradesh.
- The present study will be restricted to following variables i.e. techno pedagogical skills and teacher efficacy as the dependent variables and gender, teaching experience and educational qualification as independent variables.
- The research will be confined only to B.Ed. colleges in 6 districts of Himachal Pradesh namely; Shimla, Solan, Mandi, Hamirpur, Bilaspur and Kangra.
- The study will be delimited to sample size of 350 teacher educators.

OPERATIONAL DEFINITION OF TERMS USED

Techno-Pedagogical Skills

Techno pedagogical skills are the capacity to use technology for pedagogical reasons and integrate it into the classroom. Technology pedagogical skills refer to the skills needed to use technology for pedagogical reasons and competence to integrate technology in teaching. These will be measured with the help of research tool to be developed by the researcher.

Teacher efficacy

Teacher efficacy is a person's belief in his or her ability or competency to perform a task, reach a goal or overcome on obstacle, belief about their capabilities affects their lives. This will be measured with the help of Teacher Self-Efficacy Scale by Sood and Sen (2017).

B.Ed. Teacher Educators

In this present study, teacher educators are those who are teaching B.Ed and

M.Ed. courses in privately managed B.Ed. colleges of Himachal Pradesh.

RESEARCH METHOD TO BE USED

For conducting the present investigation, 'Survey Technique' under Descriptive Research Method was employed. Both qualitative as well as quantitative research approaches will be used for realizing the objectives of the study.

SAMPLING

In the present study, multistage sampling along with simple random sampling and incidental sampling was employed.

At the first stage, the researcher will select 6 districts out of 11 districts of Himachal Pradesh by employing convenient sampling technique. These districts will be Shimla, Solan, Mandi, Hamirpur, Bilaspur and Kangra. At the second stage, 30-35 B.Ed. colleges will be selected by employing convenient sampling technique. At the third stage, the teacher educators working in B.Ed. colleges will be selected by employing incidental sampling technique. On an average, the researcher will try to include at least 350 teacher educators teaching either B.Ed. or M.Ed. courses..

RESEARCH TOOLS TO BE USED

- For measuring Techno Pedagogical skills among teacher educators, Techno Pedagogical Assessment Scale will be developed by researcher herself.
- To measure the teacher efficacy of teacher educators, Teacher Self-Efficacy Scale by Sood and Sen (2017) will be used.
- In order to know the views of teacher educators regarding techno pedagogical skills, interview schedule will be developed by the researcher herself.

PROCEDURE FOR DATA COLLECTION

For collecting the data, the investigator will personally visit the selected colleges. The tools will be administered on an individual basis on selected sample of teacher educator with the prior permission of the head of the institution. Before getting completed tools from teacher educator, a proper rapport will be established with them and all of them will be requested to give requisite information on each item in the tools. All of them will be assured that the information furnished by them will be kept strictly confidential and will not be shown even to the managing committee members and principals of the colleges.

STATISTICAL TECHNIQUES TO BE USED

In order to achieve the objectives of the present study, different types of statistical techniques will be employed. First of all, for checking the normality of the data, certain descriptive statistics like mean, median, mode, SD, Skewness and Kurtosis will be calculated on Techno-Pedagogical skills and teacher efficacy scores.

To study the main and interactional effect of gender, teaching experience, educational qualification on techno pedagogical skills of B.Ed. teacher educators, statistical technique of Two Way Analysis of Variance will be applied. To study the relationship between techno pedagogical skills and teacher efficacy, product-moment correlation by Karl Pearson will be employed.

The techniques of percentage analysis and content analysis will be applied in case of data obtained through interview schedule for B.Ed. teacher educators.

REFERENCES

Almada. (2014). Application and Validation of a Pedagogical Lecturer Training model using a virtual learning environment. *Universities and Knowledge Society Journal, 11(1*), 91-107.

Asad, M. (2021). Techno-Pedagogical skills for 21st century digital classrooms. *Educational Research and International Journal,1*, 1-12.

Belgalmis. (2012). Developing techno-pedagogical skills in preservice elementary mathematics teachers . *Education International Conference*, 2235-2240.

Belgin. (2021). Self-efficacy and teaching skills perceptions of primary school teachers: A Predictive Study. *International Journal of Education,9(4),*236-246.

Bejasa, F. (2023). Techno pedagogical integration skills, techno stress, and self-efficacy of selected public elementary teachers. *Technique Education and Humanities,5, 27-44.*

Blonder, F. (2022). What can be learned from lecturers‟ knowledge and self-efficacy for online teaching during the Covid-19 pandemic to promote online teaching in Higher Education. *PLOS, 17(10),* 1-7.

Brando-Garrdio.(2020) .Relationship of academic procrastination with perceived competence, coping, self-stream and self-efficacy in nursing students. *Enfermeria Clinica, 30(6),* 398-403.

Caitalin,D.(2024).Impact of a food skills course with a teaching kitchen on dietry and cooking self -efficacy and behaviours among college students.Nutrients,*16(5)* , 1-8.

Caner, M. (2021). Self-efficacy belief of pre-service teachers on technology integration. *Turkish Online Journal of Distance Education, 22,* 1-9.

.

Dong, Y. (2020). Exploring the structure relationship among teachers‟ techno stress, Technological pedagogical content knowledge, computer self-efficacy and social support. *Asia Pacific Education Research, 29(2),*147-157.

ErinMacAfee.(2020).Exploring music performance anxiety, self-efficacy, performance quality .and behavioural anxiety within a self-modelling intervention for young musicians. *Music Education Research, 22(4),*457-477.

Galiana,L.(2024).Five- item general self-efficacy scale in a sample of nursing students. Nurse Education In Practice,*74,* 12-21.

Gomez, F. (2022). Exploring teachers‟ technology integration self-efficacy through the 2017 ISTE standards, *Technology Trends,* 66, 159-171.

JaunManuel.(2022).Mathematics teachers perceptions of the introduction of ICT.*Educational Science,(8)12,* 27-35.

Kasa, T. (2021). Examination of class-room teacher‟s technological pedagogical content knowledge and teacher self-efficacy beliefs. *Journal of Educational Technology. 4(4),*774-792.

Kustyarini,K.(2020).Self-efficacy and emotional quotient in mediating active learning effect on students learning outcome. *International Journal Outcome,13(2),*663-676.

Lambert,Gong. (2010). 21ST Century paradigms for pre-service teacher technology preparation. Retrieved from www.eric.ed.gov/ERICwebPortal/search. on dated 5-01-2024

Lekkam, H. (2015). ICT and the development of techno-pedagogical skills among the Algerian University teachers. *Journal of Educational and Social Research,5(1),*129-138.

Mamadou, L. (2009). Use of ICT in teaching and teacher in private elementary schools in Mali**.** Retrieved from http/www.rocare.org/ Changing on dated 22-02-2024

Mindset/pdf. Mariagiovanna,C.(2023).The protective role of positivity and emotional self-efficacy beliefs in times of the covid -19 pandemic. *Current Psychology,*(2023),*1-12.*

Mutton,T.(2007). Mentor skills in a new context: working with trainee teachers to develop the use of information and communications technology in their subject teaching. *Technology Pedagogy and Education,15(3),*337-352.

Navarro, R. 2023. Relationship between technology acceptance model self – regulation strategies and academic self–efficacy with academic performance and perceived learning among college students. *Frotiers In Psychology ,14*, 16-28.

Lyonga, N. (2021). A study of techno-pedagogical skills and teachers performance in HTTC kumba, Cameroon. *European Journal of Education and Pedagogy,2(1),*46-50.

Preeti, Bala. (2018). Techno–pedagogical competence among senior secondary school teachers. *Indian Journal of Public Health Research and Development,9(12),*7-16.

Raveendran, S.(2023). Techno-pedagogical competence among the B.Ed. trainees. *Journal for ReAttach Therapy and Development Diversities,6(2),*686-691.

Senek Senturk. (2019). Investigation of pre-service teachers‟ techno-pedagogical skills and lifelong learning tendencies.*Participatory Educational Research (PER), 6(2),*78-92.

Setua,C.(2022).Effectiveness of techno-pedagogical skills of secondary school teachers on online teaching during covid-19 pandemic. *Journal of Educational Studies Trends And Practices, 12(1)*171-183.

Teemu.(2011). Confronting the Technological Pedagogical knowledge of Finnish „Net Generation‟ students teacher, *Technology Pedagogy and Education, 20(1),*3-18.

Thirunavukkarasu,M.(2021). Techno Pedagogical Skills among B.Ed. student teachers. International Journal of *All Research, 9(4),* 2455-6211.

Yanis.(2020).Pre-service teachers self-efficacy in their teaching practice by integrating technology. International *Journal Of Information And Communication Technology Education,8(1),*1-14

The Report is Generated by DrillBit Plagiarism Detection Software

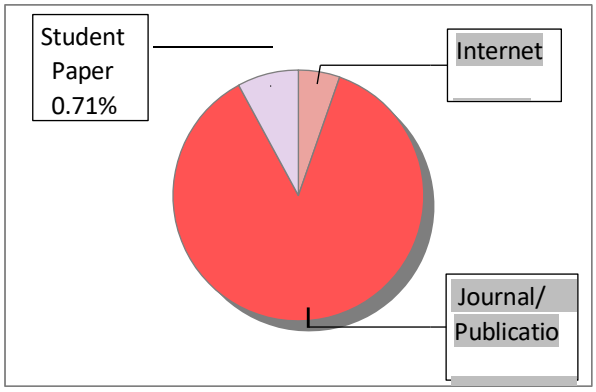
Submission Information

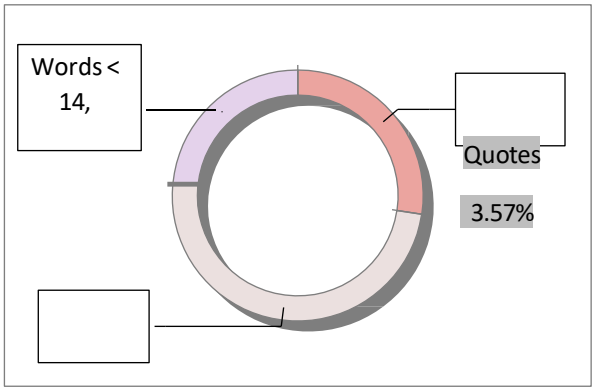
Author Name	Nitika
Title	Synopsis
Paper/Submission ID	1520137
Submitted by	negisum28@yahoo.com
Submission Date	2024-03-12 10:52:17
Total Pages	25
Document type	Synopsis

Result Information

Similarity **9 %**

1 10 20 30 40 50 60 70 80 90





Exclude Information

Quotes	Excluded
References/Bibliography	Excluded
Sources: Less than 14 Words %	Excluded
Excluded Source	**11 %**
Excluded Phrases	Excluded

Database Selection

Language	English
Student Papers	Yes
Journals & publishers	Yes
Internet or Web	Yes
Institution Repository	Yes

A Unique QR Code use to View/Download/Share Pdf File